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L#	Hits	Search String	Databases
L1	35014	CAD or "computer aided design"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L2	9059	(automated near2 inspection) or ("coordinate measuring" near2 machine$1) or ((robotic or ma	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L3	12321	((sens$3 or inspect$3) near2 surface$1) with (part$1 or component$1 or object$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L4	343	2 and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L5	56	1 and 4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L6	625	(automated or automatic$4 or "CAD guided") with (sensor near2 (planning or positioning or lo	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L7	4	(automated or "CAD guided") with (sensor near2 (planning))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L8	53	(automated or "CAD guided") with (sensor near2 (location))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L9	2	4 and 6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L10	21	2 and 6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L11	11	3 and 6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L12	47	5 and (sensor$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L13	13	4 and ((CAD or "computer aided design") with surface$1 with model$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L14	19	4 and ((camera or sensor$1) near2 model$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L15	4	4 and ((CAD or "computer aided design") with (surface$1 near2 model$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L16	32	4 and (surface with ((partition$1 with triangle$1) or triangulation))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L17	69	surface with (partition$1 with triangle$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L18	0	4 and (surface with (partition$1 with triangle$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L19	6	4 and (surface with triangle$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L20	3	2 and (partition$1 with (visible or visibility))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L21	13	1 and (partition$1 with (visible or visibility))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L22	48	1 and (triangle$1 with (visible or visibility))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L23	18	3 and (sensor with viewing with (position$1 or orientation$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L24	35	2 and (sensor with viewing with (position$1 or orientation$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L25	54	4 and ((normal or vector) with angle)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L26	10	(flat near2 patch$2) with (partition$1 or triangle$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L27	4	((flat near2 patch$2) with surface) and (("bounding box") with surface)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L28	5	("bounding box") with "front face"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L29	4	(flat near2 patch$2) with (project$2)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L30	9	(flat near2 patch$2) with sensor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L31	115	((sensor near2 (position$1 or location$1)) with surface) and ((sensor near2 (position$1 or loca	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L32	23	(sensor near2 (position$1 or location$1)) with surface with resolution	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L33	116	4 and ((camera or sensor$1) with (visibility or resolution or (field near2 view) or "focal length"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L34	31	5 and ((camera or sensor$1) with (visibility or resolution or (field near2 view) or "focal length"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L35	14	4 and "3D image"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L36	5	4 and ((path or route) with planning)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

L37	3	4 and (triangular with facet$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L38	7	(automated or automatic$4 or "CAD guided") with ((sensor or scanner or "viewing device") n	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L39	8	("bounding box") with facet$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L40	5	("bounding box") with triangular	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L41	755	triangular with facet$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L42	6	3 and 41	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L43	1	4 and 31	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L44	3	2 and 31	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L45	32	3 and 31	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

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Results of search set L24:((CAD or "computer aided design") and ((automated near2 inspection) or ("coordinate measuring" near2 machine$1) or ((robotic or machine) near2 vision))) and (((sens$3 or inspect$3) near2 surface$1) with (part$1 or component$1 or object$1))

Document	Kind Codes	Title	Issue Date	Current OR	Abstract
US 20040071316	A1	Method for image recognition in motor vehicles	20040415	382/103	
US 20040057057	A1	Non-contact measurement system for large airfoils	20040325	356/601	
US 20040046736	A1	Novel man machine interfaces and applications	20040311	345/156	
US 20030231793	A1	Scanning apparatus and method	20031218	382/154	
US 20030112447	A1	Method and device for reduction in noise in images from shiny parts	20030619	356/603	
US 20030048459	A1	Measurement system and method	20030313	356/620	
US 20020169586	A1	Automated CAD guided sensor planning process	20021114	703/1	
US 20020159073	A1	Range-image-based method and system for automatic sensor planning	20021031	356/603	
US 20020131052	A1	Advanced phase shift inspection method	20020919	356/511	
US 20020128790	A1	System and method of automated part evaluation including inspection, disposition recommen	20020912	702/81	
US 20020120359	A1	System and method for planning a tool path along a contoured surface	20020829	700/184	
US 20020054702	A1	Automated photomask inspection apparatus	20020509	382/145	
US 20020036617	A1	NOVEL MAN MACHINE INTERFACES AND APPLICATIONS	20020328	345/156	
US 6751338	B1	System and method of using range image data with machine vision tools	20040615	382/106	
US 6720949	B1	Man machine interfaces and applications	20040413	345/158	
US 6678057	B2	Method and device for reduction in noise in images from shiny parts	20040113	356/603	
US 6611617	B1	Scanning apparatus and method	20030826	382/154	
US 6597967	B2	System and method for planning a tool path along a contoured surface	20030722	700/184	
US 6594623	B1	Determining three-dimensional orientation of objects	20030715	703/1	
US 6584218	B2	Automated photomask inspection apparatus	20030624	382/144	
US 6522993	B1	Method and system for marking surface deviations on a three dimensional surface	20030218	702/150	
US 6415191	B1	Intelligent machining and manufacturing	20020702	700/95	
US 6363166	B1	Automated photomask inspection apparatus	20020326	382/144	
US 6324299	B1	Object image search using sub-models	20011127	382/151	

US 6282309 B1	Enhanced sensitivity automated photomask inspection system	20010828	382/145
US 6266138 B1	System and method for detecting defects in a surface of a workpiece	20010724	356/237.2
US 6259519 B1	Method of determining the planar inclination of a surface	20010710	356/139.03
US RE37030 E	Touch probe and signal processing circuit therefor	20010130	33/559
US 6167607 B1	Vision target based assembly	20010102	29/407.04
US 6166811 A	Robot-based gauging system for determining three-dimensional measurement data	20001226	356/602
US 6064759 A	Computer aided inspection machine	20000516	382/154
US 6056108 A	Impulse-based, flexible parts feeder	20000502	198/395
US 6052478 A	Automated photomask inspection apparatus	20000418	382/144
US 6026189 A	Method of recognizing objects within two-dimensional and three-dimensional images	20000215	382/226
US 6023680 A	Methods, apparatus and computer program products for automated visual inspection	20000208	705/7
US 6005966 A	Method and apparatus for multi-stream detection of high density metalization layers of multila	19991221	382/149
US 5982378 A	System and method for modeling a three dimensional object	19991109	345/582
US 5936628 A	Three-dimensional model processing method, and apparatus therefor	19990810	345/420
US 5917726 A	Intelligent machining and manufacturing	19990629	700/95
US 5910894 A	Sensor based assembly tooling improvements	19990608	700/95
US 5737072 A	Automated photomask inspection apparatus and method	19980407	356/73
US 5594768 A	Laminograph and inspection and repair device using the same	19970114	378/21
US 5572598 A	Automated photomask inspection apparatus	19961105	382/144
US 5563702 A	Automated photomask inspection apparatus and method	19961008	356/73
US 5473257 A	Feed rate measuring method and system	19951205	324/671
US 5465221 A	Automated process planning for quality control inspection	19951107	702/83
US 5380978 A	Method and apparatus for assembly of car bodies and other 3-dimensional objects	19950110	219/121.64
US 5378994 A	Non-contact capacitance based image sensing method and system	19950103	324/671
US 5281921 A	Non-contact capacitance based image sensing method and system	19940125	324/671
US 5231675 A	Sheet metal inspection system and apparatus	19930727	382/152
US 5118192 A	System for 3-D inspection of objects	19920602	356/602
US 5030008 A	Method and apparatus for the automated analysis of three-dimensional objects	19910709	356/394
US 5023916 A	Method for inspecting the leads of electrical components on surface mount printed circuit boa	19910611	382/150
US 4918627 A	Computer integrated gaging system	19900417	702/82
US 4811410 A	Linescan inspection system for circuit boards	19890307	382/147
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1 **Part geometric understanding for tool path planning in additive manufacturing**
Weihua Sheng; Ning Xi; Heping Chen; Yifan Chen; Mumin Song;
Computational Intelligence in Robotics and Automation, 2003. Proceedings. 2 IEEE International Symposium on , Volume: 3 , 16-20 July 2003
Pages:1515 - 1520 vol.3

[Abstract] [PDF Full-Text (507 KB)] **IEEE CNF**

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2 **Tool-path generation for NURBS surface machining**
Sungchul Jee; Taehoon Koo;
American Control Conference, 2003. Proceedings of the 2003 , Volume: 3 , 4 June 2003
Pages:2614 - 2619 vol.3

[Abstract] [PDF Full-Text (624 KB)] **IEEE CNF**

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3 **Tying together design, process planning and machining with STEP-I technology**
Proctor, F.M.; Michaloski, J.L.; Shackleford, W.P.;
World Automation Congress, 2002. Proceedings of the 5th Biannual , Volume: 14 , 9-13 June 2002
Pages:33 - 38

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4 **An exact representation of effective cutting shapes of 5-axis CNC machining using rational Bezier and B-spline tool motions**
Xia, J.; Ge, Q.J.;
Robotics and Automation, 2001. Proceedings 2001 ICRA. IEEE International

Conference on , Volume: 1 , 2001
Pages:342 - 347 vol.1

[Abstract] [PDF Full-Text (564 KB)] IEEE CNF

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5 **Surface slicing algorithm for rapid prototyping and machining**
Cha-Soo Jun; Dong-Soo Kim; JiSeon Hwang; Tien-Chien Chang;
Geometric Modeling and Processing 2000. Theory and Applications.
Proceedings , 10-12 April 2000
Pages:373 - 382

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6 **Coordination control and deposition planning for improving deposit accuracy in layered manufacturing process**
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Pages:1709 - 1714 vol.3

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7 **Rapid 3-D digitizing and tool path generation for complex shapes**
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Pages:2789 - 2794 vol.4

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8 **A manufacturing system for automated production of polystyrene n**
Viswanathan, A.; Jouaneh, M.; Datseris, P.; Palm, W.;
Robotics & Automation Magazine, IEEE , Volume: 3 , Issue: 3 , Sept. 1996
Pages:39 - 43

[Abstract] [PDF Full-Text (832 KB)] IEEE JNL

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9 **Surface modeling and robot path generation using self-organizatior**
Varsta, M.; Koikkalainen, P.;
Pattern Recognition, 1996., Proceedings of the 13th International Conference on , Volume: 4 , 25-29 Aug. 1996
Pages:30 - 34 vol.4

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10 **System architecture and edge tracking performance of an automat robotic deburring workcell**
Rajagopalan, R.; Cheng, R.M.H.; Ayyadevara, V.R.; Huard, G.;
Intelligent Control, 1995., Proceedings of the 1995 IEEE International Sympo on , 27-29 Aug. 1995
Pages:351 - 356

[Abstract] [PDF Full-Text (552 KB)] IEEE CNF

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11 **Automated digitization and geometric modelling of refurbished components for deburring**
Temple-Raston, M.; Cheng, R.M.H.; Rajagopalan, R.;
Emerging Technologies and Factory Automation, 1994. ETFA '94., IEEE Symp on , 6-10 Nov. 1994
Pages:345 - 349

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12 **Tool-path verification using computer graphics**
Yonghong Xue; Leybourne, A.E.;
TENCON '93. Proceedings. Computer, Communication, Control and Power Engineering.1993 IEEE Region 10 Conference on , Issue: 0 , 19-21 Oct. 1993
Pages:415 - 417 vol.1

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13 **Workholding-analysis and planning**
Mishra, B.;
Intelligent Robots and Systems '91. 'Intelligence for Mechanical Systems, Proceedings IROS '91. IEEE/RSJ International Workshop on , 3-5 Nov. 1991
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Computational Intelligence in Robotics and Automation, 2003. Proceedings. 2 IEEE International Symposium on , Volume: 3 , 16-20 July 2003
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